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REPORT NO. 13

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PROCUREMENT SECTION
CURRENT SERIAL RECORDS

Cotton Fiber and Processing Test Results

CROP of

1971



Consumer and Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 February 4, 1972

This is the thirteenth, and last, report on fiber and processing test results on the 1971 cotton crop. These reports were issued twice each month during the harvesting season, and will be summarized in a comprehensive report to be issued in early spring. This 1971 group of reports gives data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1970", March 1971. These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, TN 38117.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1971

Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that fibers from Southwestern short staple samples tested through January 28, 1972 are finer and weaker than through the end of the season last year. Shirley Analyzer nonlint content and picker and card waste are higher. Yarns spun from these samples are weaker with more imperfections. Average spinning potential yarn number is lower.

Averages for all medium staple samples tested to date show a weaker zero gage fiber strength while 1/8-inch gage is the same as through the end of the season last year. Yarns spun from these samples show higher appearance grades with more imperfections.

Medium staple samples from the Southeast are weaker than last season. Yarns spun from these samples show higher appearance grades with more imperfections.

Medium staple samples from the Southwest are shorter, show less fiber uniformity, are finer and weaker than through the end of last season. Shirley Analyzer nonlint content is higher. Yarns spun from these samples are weaker and show more imperfections. Average spinning potential yarn number is lower.

No additional South Central or Western medium staple samples were received during this report period.

Averages for all long staple samples tested to date show less uniform, finer and weaker fibers than a year ago. Shirley Analyzer nonlint content is lower while picker and card waste is higher. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections.

Long staple samples from the West are shorter, finer and weaker at 1/8-inch gage fiber strength than last season. Shirley Analyzer nonlint content is lower while picker and card waste and comber waste are higher. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections. Average spinning potential yarn number is higher.

No additional Southeastern or South Central long staple samples were received during this report period.

No additional extra long staple, American Upland, samples were received during this report period.

Extra long staple, American Pima, samples from the West are shorter, coarser and weaker than last season. Shirley Analyzer nonlint content is lower while picker and card waste is higher. Yarns spun from these samples are weaker than last year.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through January 28, 1972
1/ (Continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results						Processing Test Results									
		Length			Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality				SPY		
		Span	Unif	Zero gage		1/8" gage	Strength				Appearance		Imprfctns				
							In.				Pct.	Rdg.	Mpsi	G/tx		Pct.	Lbs. carded
<u>Long Staple:</u>																	
Southeast																	
1970	14	1.14	45	4.7	82	23	4.5	8.6	18.5		109	122	103	100	21	11	65
1971	16	1.14	43	4.3	79	22	4.2	9.7	17.2		102	118	109	118	22	10	65
South Central																	
1970	6	1.16	42	4.6	85	24	4.5	9.2	20.0		102	124	93	115	26	10	62
1971	3	1.22	43	4.5	83	24	5.3	9.6	16.4		113	130	107	117	20	9	70
West																	
1970	20	1.18	45	3.7	92	27	3.5	8.2	16.0		134	152	86	94	43	26	75
1971	15	1.16	44	3.5	92	25	2.4	8.8	17.3		127	146	95	103	27	15	77
U. S. Average																	
1970	40	1.16	45	4.2	87	25	4.0	8.5	17.5		120	137	93	99	33	18	70
1971	34	1.16	43	4.0	85	24	3.5	9.3	17.2		114	131	103	111	24	12	71
<u>Extra Long Staple:</u>																	
West																	
<u>Array</u>																	
<u>American Upland</u>																	
1970	3	1.41	32	3.8	112	35	2.5	7.7	18.2			71		103		7	
1971	2	1.41	30	4.0	105	30	2.0	8.2	16.0			66		100		10	
<u>American Pima</u>																	
1970	18	1.48	31	3.6	100	34	3.5	8.0	17.7			70		110		4	
1971	24	1.45	31	3.8	99	33	2.7	8.5	17.6			65		112		4	
Significant Difference <u>2/</u>		0.02	2	0.2	2	1	0.5	0.5	0.5	0.5	4(22s)	4(22s)	5	5	2	2	3

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States
through January 28, 1972

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results								
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.					
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections						
				Inches			Pct.	Rdg.				Mpsi	G/tex	Pct.	Lbs.	Index	No.
Short Staple:																	
Southwest	63	0.94	46	4.3	86	21	3.2	6.0	93	114	29	43					
1970	65	0.95	45	3.8	79	20	4.4	7.2	86	112	40	37					
1971																	
Medium Staple:																	
Southeast	83	1.07	45	4.4	83	23	3.6	6.7	102	101	18	60					
1970	68	1.08	45	4.4	79	22	3.4	6.6	99	109	20	61					
1971																	
South Central																	
1970	171	1.09	45	4.5	82	22	3.2	6.2	102	106	22	61					
1971	142	1.10	44	4.3	81	22	3.0	5.9	103	112	20	62					
Southwest																	
1970	66	1.06	46	4.2	87	23	3.2	6.3	106	113	29	62					
1971	46	1.04	44	4.0	84	22	3.8	6.5	102	113	35	55					
West																	
1970	70	1.10	45	4.2	93	25	2.7	5.7	118	113	25	70					
1971	60	1.12	45	4.2	92	25	2.7	5.3	121	120	24	70					
U. S. Average																	
1970	390	1.08	45	4.4	85	23	3.2	6.2	106	107	21	63					
1971	316	1.09	44	4.3	83	23	3.1	6.0	105	113	23	62					
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3					

1/ Based on a limited number of samples of modal quality2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1971--(Continued)

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Grade	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent-ial	
				2.5% span	Unif		Zero Gage	1/8" Gage			Gra	Yel		8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx		8s or 74 tx
No	Name & Code		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	
SOUTHWEST--(Continued)																							
NORTHWEST TEXAS--(Continued)																							
TULIA																							
2 LM LT SP	1/52	29	0.88		44	2.9	80	19	6.8	4.8	4	4	90 PERCENT	85	7.2	6.2	120	120	56	38	31		
3 LM LT SP	1/52	29	0.86		44	2.9	78	20	7.3	5.1	4	4	8.1	292	84	6.7	5.9	120	110	55	36	25	
OKLAHOMA																							
ALTUS																							
2 SLM LT SP	42	31	1.00		46	4.1	77	20	8.0	3.4	4	4	100 PERCENT	91	7.9	6.7	130	130	28	18	43		
SAYRE																							
2 SLM LT SP	42	30	0.95		45	2.9	81	21	7.4	4.8	3	3	70 PERCENT	95	7.2	6.5	110	100	59	37	43		
SNYDER																							
2 SLM LT SP	42	31	0.99		45	4.1	78	20	7.3	3.0	3	4	100 PERCENT	90	7.5	6.7	130	120	45	27	43		
NEW MEXICO																							
CAUSEY																							
3 LM LT SP	1/52	29	0.88		46	3.0	85	20	6.5	5.8	3	3	75 PERCENT	91	6.6	6.3	110	110	104	58	33		

1/ Reduced from 42 because of bark

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation	Appearance Index		Imprfct'ns		Spin. Poten- tial				
		2.5% span	Unif.		Zero Gage	1/8" Gage			Pct	G/tex		Pct	No		Yel	No	22s or 27 tx	50s or 12 tx		Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx
No	Grade	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Lbs	Lbs	Pct	Pct	No	No	No	No			
SOUTHEASTERN																							
NORTH CAROLINA																							
PINEVILLE																							
2	LM LT SP	52	35	1.12	45	4.1	81	24	TH-149	5.4	4.1	5	3	100 PERCENT	34	5.9	4.6	120	100	20	13	68	
SOUTHWEST																							
NORTHWEST TEXAS																							
LUBBUCK																							
3	LM LT SP	1/52	30	0.97	45	2.8	80	20	PAYMASTER 111	7.6	5.3	4	4	75 PERCENT	30	6.4	4.5	80	60	83	64	37	
O'DONNELL																							
3	LM LT SP	1/52	30	0.97	44	2.7	80	22	PAYMASTER 111	7.7	6.0	4	4	80 PERCENT	32	6.8	5.8	110	2/80	51	39	40	
RAYLAND																							
2	SLM LT SP	42	33	1.06	47	4.0	86	23	LOCKETT 4789-A	6.4	3.4	4	4	100 PERCENT	35	6.5	4.1	120	90	29	21	56	
ROPEVILLE																							
3	SLM SP	43	30	0.97	43	2.6	78	22	LOCKETT 4789-A	8.2	3.8	4	5	100 PERCENT	31	7.3	5.4	80	60	112	79	46	
SEMINOLE																							
3	LM SP	3/53	30	0.99	41	2.4	77	22	PAYMASTER 111	8.5	5.6	5	6	80 PERCENT	33	7.3	5.4	60	60	146	111	43	
VERNON																							
2	SLM LT SP	42	34	1.07	47	3.8	86	23	LOCKETT 8XL	6.7	3.8	3	3	100 PERCENT	38	6.2	4.5	110	90	24	18	62	

1/ Reduced from 42 because of bark

2/ Would not spin 50's, spun 44's

3/ Reduced from 43 because of bark

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Style	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Comber Waste		Strength		Elongation		Appearance Index		Imperfct's 22s or 27 tx	Spin. Poten- tial	
				2.5% span	Unif.		Zero Gage	1/8" Gage			No	Yel	No	Pct	Lbs	Pct	No	22s or 27 tx	No	50s or 12 tx			No
				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Pct	Pct	No	No	No	No	No	No	
				ACALA 1517-70																			
				2.9	42	2.9	90	21	6.3	2.8	1	3	10.2	112	40	5.6	4.2	80	60	51	46	65	
				* 22.8 138 52 6.0 4.8 90 23 24																			
WESTERN																							
NEW MEXICO																							
DEXTER																							
3 SLM																							
41	36			1.09	42	2.9	90	21	6.3	2.8	1	3	10.2	112	40	5.6	4.2	80	60	51	46	65	

1/100 percent selected for tests, less than 100 percent in the area

** Comber Waste and Combed Yarn Data

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Combed Yarns											
No		Grade	Stple	Array Length		Mike	Fiber Strength		Elon- gat'n 1/8" Lint	S.A. Non- Lint		Color Raw Stock		P & C Waste	Comber Waste	Strength		Elongation		Appearance Index		Imprfect'ns			
				UqL	CV		Zero Gage	1/8" Gage		Pct	Pct	Gra	Yel			Pct	Pct	Lbs	Lbs	Pct	Pct	50s or 12 tx	80s or 7 tx	50s or 12 tx	80s or 7 tx
32s				In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct							No	No	No	No	
WESTERN																									
ARIZONA																									
SAFFORD																									
4	5	44		1.49	28	4.0	103	35	7.9	2.7	4	5	71 PERCENT			67	35	5.7	5.2	110	120	2	2		
WEST TEXAS																									
EL PASO																									
4	5	44		1.39	33	3.1	100	32	7.2	4.4	5	6	100 PERCENT*			64	35	5.9	5.2	100	90	7	6		
EL PASO																									
4	4	44		1.45	31	3.5	102	33	7.3	1.7	3	6	95 PERCENT			64	35	6.0	5.2	100	100	7	5		

* 100 percent selected for tests, less than 100 percent in the area